



### Recommendation No. 136

January 23, 2001

#### Technology Investigation for PUREX Treatment and Incineration

##### **Background:**

The Savannah River Site (SRS) Citizens Advisory Board (CAB) through the efforts of the Waste Management Committee and the Consolidated Incineration Facility (CIF) Focus Group has been following closely the issues surrounding technology investigations to PUREX treatment at SRS and the DOE-HQ investigations related to incineration. The DOE-HQ investigations include the panel of independent scientific experts (known as the Blue Ribbon Panel) exploring technological alternatives to incineration and the Headquarters Study Team which is assessing the demand for incineration within the DOE complex versus commercial treatment methods, including incineration, potentially available for onsite use.

SRS CAB Recommendation No. 129 addressed many of the CAB's concerns (Ref. 1) and focused on the need for identification of the best available technology for treatment of PUREX and other mixed low-level wastes within the DOE complex. As requested, both the Headquarters (Ref. 2) and the SRS (Ref. 3) responses provided assurances that any alternative technology would be environmentally sound, cost effective, and meet all regulatory requirements.

##### **Comment:**

The SRS CAB does not believe that DOE-HQ and SRS meant to specifically exclude the word "incineration" in their response about alternative PUREX treatment investigations. However, the SRS CAB strongly believes that a best available technology investigation will not be complete without evaluating current or enhanced incineration technologies such as those already present at SRS.

As addressed in the CIF FG letter to the Blue Ribbon Panel (Ref. 4), the CIF FG respectfully requested the Panel's acknowledgement that their recommendation to alternative treatment selection not be universally applied across the DOE complex. The letter pointed out that incineration might indeed be the best choice both technologically and economically for PUREX waste at SRS but that incineration may not be the best available technology at other DOE facilities. Site-specific circumstances, best science, and best engineering practices should dictate the selection of the best available treatment technology for a particular mixed waste at a particular DOE facility. However, any technology identified must be technically sound, safe, reliable, cost-effective and meet regulatory standards.

The CIF FG letter also pointed out that the delay in treatment of mixed waste while a new emerging technology is being developed should be considered, especially when an existing and proven technology, like incineration, is available. The CIF FG believes the Headquarters Study Team should also consider the value DOE incineration will have if efficiency improvements were implemented to existing incineration technologies to meet waste demands. The SRS CAB is convinced the CIF has much to offer in the treatment of PUREX waste at SRS and can play a valuable role in the treatment of waste within the DOE complex.

##### **Recommendation:**

The SRS Citizens Advisory Board agrees with and supports the conclusions of the CIF FG and therefore recommends that:

1. DOE-HQ use the alternative technology recommendation from the Blue Ribbon Panel (BRP) to address specific waste streams at the Idaho National Engineering and Environmental Laboratory (INEEL) and not expand the BRP's evaluations to different waste streams at SRS.
2. The Headquarters Study Team consider operational improvements to existing DOE incineration technologies when it evaluates commercial treatment methods.
3. DOE-SR continues to include incineration or, more specifically, the enhancement of CIF in its investigation for the best available technology to treat PUREX waste.

4. DOE-SR considers and justifies any potential delays in the treatment of PUREX waste caused by using new emerging technology versus the use of the already existing CIF.

**References:**

1. Citizens Advisory Board Recommendation No. 129 (adopted September 26, 2000), "Request for Data/Information on alternative Technologies to Incineration".
2. Huizenga to Patterson Recommendation No. 129 Response Letter, November 14, 2000.
3. Rudy to Patterson Recommendation No. 129 Response Letter, October 6, 2000.
4. Consolidated Incineration Facility Focus Group letter to Blue Ribbon Panel, December 7, 2000.

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**Agency Responses**

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